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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re:	Patent Application of Kazunao NAKASUKA et al.	: Group Art Unit: : :
Appln. No.:	Not Yet Assigned	: Examiner: :
Filed:	Herewith	: : Attorney Docket
For:	ROTARY TYPE ACTUATOR, MANUFACTURING METHOD FOR THE SAME AND ARM POSITIONING APPARATUS	: No. 8861-426US : (P25654-01) : :

PRELIMINARY AMENDMENT

Simultaneously with the filing of the above-identified application with which this Preliminary Amendment is being filed, and prior to the calculation of the filing fee, Applicant hereby amends the application as follows, without prejudice:

In the Claims:

Please amend the claims as follows:

Please amend claims 8, 9, 10 and 11 to read as follows. A marked-up copy of the amended claims is attached hereto, having the bracketed additions and stricken deletions.

-- 8. An arm positioning apparatus according to claim 6, further comprising:
a first pressing means that can depress said positioning pin in said arm positioning direction and
a second pressing means that can depress said pin holder in said arm positioning direction of said
positioning pin are provided inside of a containment chamber containing said pin positioning
means which can slide freely; said pin holder is placed in a predetermined upper position by said
second pressing means and said positioning pin is placed in the two places of a arm positioning
position and an arm holding position by said first pressing means; and said pin holder is placed
in a predetermined lower position by said second pressing means so that said positioning pin is

placed in a stand-by position wherein said positioning pin comes out of said suspension element attachment holes of said arms.

9. An arm positioning apparatus according to claim 6 wherein said positioning pin has a large diameter portion that continues to said cone portion and a flange portion that protrudes in the radial direction from said large diameter portion, and said pin holder has a cylindrical surface of a large diameter on which said flange portion slides and a flat surface that forms a step between said cylindrical surface of a large diameter and the inclined surface, a first compression means is provided between the flange portion of said positioning pin and the flat surface of said pin holder so as to compress the flange portion of said positioning pin and the flat surface in the direction wherein the two move away from each other, a second compression means is provided between the surface of a ceiling of the containment chamber that contains said pin positioning means in a freely slidable manner and said pin holder so as to compress the surface of the ceiling and said pin holder in the direction wherein the two move away from each other.

10. An arm positioning apparatus according to claim 6, wherein a surface of said positioning pin that is inserted into said suspension element attachment holes of said arms is coated with a sinter prevention material.

11. An arm positioning apparatus according to claim 6 that is built into a metal mold for resin molding.--

REMARKS

Claims 1 to 12 are pending in the application.

The purpose of this amendment is to place the claims in appropriate U.S. form and delete the multiple dependent claims in this application, and thereby eliminate excessive claim fees. Such amendments are formal in nature and no new matter is added by any of the above amendments. A marked-up copy of the claims is enclosed to reflect these amendments. Entry of this amendment and early examination of this application are respectfully solicited.

[Musical notation]

Respectfully submitted,

KAZUNAO NAKASUKA ET AL.

March 29, 2002
(Date)

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Enclosure

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wherein said positioning pin has a small diameter portion that is engaged in the suspension element attachment holes and a cone portion which has a diameter that gradually spreads outward from said small diameter portion, and

said pin holder of said pin positioning means has a cylindrical surface with a small diameter that guides the movement of the small diameter portion of said positioning pin and an inclined surface that makes contact with and is positioned by the cone portion of said positioning pin.

8. An arm positioning apparatus according to claim 6 ~~or 7~~, further comprising:

a first pressing means that can depress said positioning pin in said arm positioning direction and a second pressing means that can depress said pin holder in said arm positioning direction of said positioning pin are provided inside of a containment chamber containing said pin positioning means which can slide freely;

said pin holder is placed in a predetermined upper position by said second pressing means and said positioning pin is placed in the two places of a arm positioning position and an arm holding position by said first pressing means; and

said pin holder is placed in a predetermined lower position by said second pressing means so that said

positioning pin is placed in a stand-by position wherein said positioning pin comes out of said suspension element attachment holes of said arms.

9. An arm positioning apparatus according to claim 6 ~~or~~ 7, wherein said positioning pin has a large diameter portion that continues to said cone portion and a flange portion that protrudes in the radial direction from said large diameter portion, and

said pin holder has a cylindrical surface of a large diameter on which said flange portion slides and a flat surface that forms a step between said cylindrical surface of a large diameter and the inclined surface, a first compression means is provided between the flange portion of said positioning pin and the flat surface of said pin holder so as to compress the flange portion of said positioning pin and the flat surface in the direction wherein the two move away from each other, a second compression means is provided between the surface of a ceiling of the containment chamber that contains said pin positioning means in a freely slidable manner and said pin holder so as to compress the surface of the ceiling and said pin holder in the direction wherein the two move away from each other.

10. An arm positioning apparatus according to claim 6 ~~or~~ 7, wherein a surface of said positioning pin that is inserted into said suspension element attachment

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holes of said arms is coated with a sinter prevention material.

11. An arm positioning apparatus according to claim ~~6 or 7~~ that is built into a metal mold for resin molding.

12. A manufacturing method for a rotary type actuator which is manufactured by resin molding both sides of a holder member in a cylindrical shape for supporting arms on a chassis so as to rotate, and said arms for attaching suspension elements having magnetic heads at one end of each arm and a coil member, and said manufacturing method having:

a step of placing said arms at predetermined positions relative to said holder member that is held in a metal mold for resin molding;

a step of carrying out positioning of said arms by inserting a positioning pin in suspension element attachment holes of said arms so as to restrain and position said positioning pin at a constant axis position;

a step of resin molding said arms by releasing the restriction of said positioning pin after the completion of arm positioning; and

a step of pulling out said positioning pin from said suspension element attachment holes after the completion of resin molding.